

**FCC Declaration**

AT4 wireless, S.A.U.  
Parque Tecnológico de Andalucía  
C/ Severo Ochoa 2 & 6  
29590 Campanillas  
Málaga, España

To Whom It May Concern:

**We**

Ericsson AB  
Lindholmspiren 11,  
41756 Gothenborg  
Sweden  
Contact: Bernie Fuller  
Tel: +46 10 712 4371

**Hereby declare that:**

Only qualified installers are used for installation of the Gateway 5780. They are given the required technical information as well as special access to be able to configure the Operation and Maintenance interface. Access to this is only possible by using a private encryption key.

The private encryption keys are controlled by the LoRa network operator, who controls the distribution of the keys to the intended installation personnel only.

From the factory, the Gateway 5780 is not active and cannot operate until it is configured by a qualified installer with the required security access. To enable the Gateway 5780 and to put it into operational mode, including enabling transmit power capability, the correct radio configuration including site configuration details such as antennas and antennas gain information must be actively set via the Operation and Maintenance configuration.

The Users of Gateway 5780 are the physical sensors that connect to it and as such they will never have any access to be able to change any configuration of Gateway 5780 so that it can operate outside of the radio parameters under which the Gateway has been certified and approved for correct use.

The total antenna gain (including eventual feeder cable loss) in dB for the actual antenna used shall be configured at installation for correct maximum output power capability.

The configured antenna gain must be the same or higher than the actual antenna gain for the Gateway to operate within the limits for conducted and radiated output power. The Gateway then transmits the maximum output power to respect the following limits in USA and Canada of conducted output power maximum 27.5dBm and EIRP maximum 36dBm. The actual maximum E.I.R.P. values of the Gateway 5780 are therefore defined by the maximum conducted output value + the compensation value (antenna gain + feeder cable path loss).

Antenna Gain (dBi)	Maximum Conducted Output power at Antenna Reference Point. (dBm)	Maximum EIRP (dBm)
2	27.5	29.5
11	25	36

Part of the LoRa RF circuitry is made up of 4 ASIC SX1257. All four Asics are used for listening as the receive BW is limited on each one, only one is transmitting.

We also hereby certify that neither we nor any party to this application are subject to a denial of U.S. Federal benefits, which include FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, U.S.C. 862 because of conviction for possession or distribution of controlled substance.

24<sup>th</sup> March 2017



**Bernie Fuller**

Solution Architect  
Business Unit IP & Cloud Services,  
Ericsson AB

Lindholmospiren 11  
SE-417 56 Gothenburg  
[www.ericsson.com](http://www.ericsson.com)

Office: +46 10 712 43 71  
Fax: +46 10 712 6033  
Mobile: +46761497182  
Email: [bernie.fuller@ericsson.com](mailto:bernie.fuller@ericsson.com)